Enclosure III

Specific Revisions and/or Technical Clarifications To The September 2001 RFI Site Specific and Master Work Plans

(Items below are revisions or technical clarifications made in response to specific comments, where a response is identified with an "N-" in Attachment I. Since the RFI Site Specific and Master Work Plans have not been translated into Spanish as discussed in Attachment II, the below technical clarifications have not been translated into Spanish)

In addition, copies of all pages, figures, or Tables that are indicated below to have been revised, are attached herewith.

1. Page 2-43, Section 2.13.3 of the Site Specific Work Plan (SSpWP) has been revised to state that each "Potential Area of Concern" (PAOC) be visually inspected during the Phase I RFI and Navy personnel interviewed regarding history, use, disposal, etc. Also, the page will be revised to clarify that a report of the PAOC inspections will be provided to EPA and EQB for review prior to finalizing the sampling locations at the PAOCs to be sampled. Also, the page will be revised to clarify that the results of the visual inspections and sampling and analysis of all POACs required to be investigated under the SSpWP will be included in the Draft Phase I RFI Report, when developed. A copy of this revised page is attached. In addition, it should be noted that the results of the visual inspections and sampling and analysis of all PAOCs required to be investigated under the SSpWP is included in the April 1, 2003 Draft Final Report *"Environmental Baseline Survey, Vieques Naval Training Range" (the EBS)* , submitted to EPA on May 15, 2003. The EBS is currently undergoing review by EPA and the Puerto Rico Environmental Quality Board (PREQB). Once the Navy incorporates the comments form EPA and PREQB, the EBS will be available for public review.

2. Page 3-1, Paragraph 2 of the SSpWP has been revised to state that for solid waste management unit (SWMU) 4 a total of eight (8) soil samples will be collected during the installation of soil borings and analyzed for all volatile organic constituents (VOCs) and semi-volatile organic constituents (SVOCs) included in the list of constituents given under Appendix IX of 40 Code of Federal Regulations (CFR) § 264. A copy of the revised page is attached.

3. Table 3-1 of the SSpWP has been revised to state that there will be 24 surface soil samples collected at SWMU 2. A copy of this revised Table is attached.

4. In response to the Puerto Rico Environmental Quality Board (PREQB) Site Specific Work Plan Comment 2.3.3 c [1.3.3.c of the 12/09/02 submittal], Table 3-1 of the SSpWP has been revised to state that there will be five groundwater samples collected at SWMU 10. A copy of this revised Table is attached.

5. In response to PREQB Site Specific Work Plan Comment 2.3.3 d [1.3.3.d of the 12/09/02 submittal], an additional table has been added to the SSpWP showing the number of each quality control (QC) samples which will be collected (equipment blanks, field blanks, trip blanks, MS/MSQs, field duplicates) at each site to clarify how the number of quality assurance/quality control (QA/QC) samples were derived. A copy of this Table [Table 3-1a] is attached.

6. Table 3-2 of the SSpWP has been revised to indicate the extraction fluid for volatile organic constituents (VOCs) extractions. A copy of the revised table is attached.

7. Table 2-1 of the Master Field Sampling Plan in the September 2001 Master Work Plan has been revised to show separate collection of bottles for acrolein and acrylonitrile; as per Chapter 4 of SW-846. A copy of this revised Table is attached.

8. Section 3.3.2 [Page 3-12] of the SSpWP has been revised to state that data validation will be pursuant to the requirements of Section X of the January 2000 RCRA Consent Order, and that all deviations from that have been, or will be, approved in writing by EPA. A copy of the revised page 3-12 is attached.

9. Several standard operating procedure (SOPs) applicable for check-marked tasks on the "Site Specific Field Sampling Plan Checklist " included in the September 2001 SSpWP, were missing from the September 2001 Master Work Plan. The missing SOPs have been added to either Attachment 2 (Standard Operating Procedures) of the Master Work Plan or the CH2M Hill Health and Safety Plan (HSP), which is also included as part of the Master Work Plan. The added SOPs include: 1) EPA Region 2's March 16, 1998 Final Ground Water Low Flow Sampling Procedure, 2) Field Surveying, 3) [Heavy Equipment] Decontamination Procedures, and 4) the Ordnance Explosives (OE) Standard of Practise HSE-91. The other SOPs for check-marked tasks on the "Site Specific Field Sampling Plan Checklist " were already included in the September 2001 Master Work Plan In addition any appropriate EPA and ASTM procedures , will be incorporated into the existing SOPs. Copies of the four added SOPs are attached.

10. Two aerial photographic analysis were performed: the August 7, 2000 "Draft Air Photo Analysis of EMA/AFWTF" by Environmental Research Inc. (ERI, 2000) and the August 1999 "Aerial Photographic Analysis, U.S. Navy Atlantic Fleet Training Facility, Solid Waste Management Units 1 and 10, Areas of Concern F and G" by Lockheed Martin. These two reports have not been submitted to EPA. However, portions of these reports of aerial photographic analysis are included in the April 2003 Draft Final Report *"Environmental Baseline Survey, Vieques Naval Training Range" (the EBS)*, submitted to EPA on May 15, 2003. The EBS, including the results of the aerial photographic analysis, is currently undergoing review by EPA and EQB. Once the Navy incorporates the comments form EPA and EQB the EBS will be available for public review. The Navy has indicated to EPA that copies of both aerial photographic analysis reports will also be placed in all public repositories identified in the Community Relations Work Plan.

11. Initial development of the work plans for the SWMUs and AOCs required to be investigated under the January 2000 Consent Order indicated none of them were in the vicinity of munitions and explosives of concern (MEC) [a/k/a "UXO"] sites. However, based on the information in the April 2003 Draft Final *Preliminary Range Assessment*

(PRA) Report there is a potential that MEC may be present in the vicinity of a few of the sites. As a result, ordnance and explosive (OE) safety precautions have now been included in the Site-specific Health and Safety Plan and in the Master and Site-specific Work Plans. Following the review of the PRA by the EPA and EQB the Navy will revise the PRA based on the comments received and will make the PRA available for public review.

12. Copies of the August 7, 2000 "Draft Air Photo Analysis of EMA/AFWTF" by Environmental Research Inc. (ERI, 2000) and the 1999 "Aerial Photograph Study" by Lockheed Martin have not been submitted to EPA. However, portions of these reports of aerial photographic analysis are included in the April 2003 Draft Final Report *"Environmental Baseline Survey, Vieques Naval Training Range" (the EBS)*, submitted to EPA on May 15, 2003. The EBS, including the results of the aerial photographic analysis, is currently undergoing review by EPA and EQB. Once the Navy incorporates any comments form EPA and EQB into a revised EBS, if required, the Navy will make the EBS available for public review. The Navy has indicated to EPA that copies of both aerial photographic analysis reports will also be placed in all public repositories identified in the Community Relations Work Plan.

13. In response to PREQB Site Specific Work Plan Current Conditions Comment 4.5.4 [2.3.4 of the 12/09/02 submittal], Table 1-1 of the Description of Current Conditions Report has been revised as appropriate to provide consistency with text. A copy of this revised Table is attached.

14. In response to PREQB's Comment 2.3.3. d [1.3.3.d of the 12/09/02 submittal] on the Site Specific Work Plan, an additional table [Table 2-1a] has also been added to the Master Field Sampling Plan, which is part of the Draft Final Master Work Plan which details the field QC samples. A copy of new Table 2-1a is attached.

15. In response to PREQB comment 6.3.3 [3.3.3 of the 12/09/02 submittal] on the Master Sampling Plan, Table 2-1 of the Master Field Sampling Plan, which is part of the Draft Final Master Work Plan has been modified to reflect the maximum 14 day holding time (HT) for explosives. Method 8330 will be the analytical method utilized for analysis of explosive constituents in waters and soils . A copy of the revised Table is attached.

16. In response to PREQB comment 2.2.34 [1.2.34 of the 12/09/02 submittal] on the Site Specific Work Plan, please note that the best available technology will be utilized to determine method detection limits (MDL's) and subsequent reporting limits (RL's). It is widely recognized that current technology cannot meet all of the human health risk based concentrations. Additionally, MDL's and RL's are laboratory specific. MDL's and RL's will be provided on a project and laboratory specific basis.

17. In response to PREQB comment 6.3.3 [3.3.3 of the 12/09/02 submittal] on the Master Sampling Plan, Table 2-1 of the Master Field Sampling Plan [part of the September 2001 Draft Final Master Work Plan] has been revised to delete the note that aqueous samples submitted for TCLP VOCs will be preserved in the field with hydrochloric acid (HCl) to a pH<2. A copy of this revised Table is attached.

18. In response to PREQB's comment 6.3.3 [3.3.3 of the 12/09/02 submittal] on the Master Field Sampling Plan [included as part of the Draft Master Work Plan], Table 2-1 has also been revised to reflect that the method of analysis listed for arsenic is now changed to reflect the most current update (method 7061 A). The "A" has been appended to the method number. A copy of this revised Table is attached.

19. In response to PREQB's comment 6.3.3 [3.3.3 of the 12/09/02 submittal] on the Master Field Sampling Plan [included as part of the Draft Master Work Plan], Table 2-1 has also been revised to reflect that the holding time for TCLP-SVOCs and TCLP pesticides has been revised to include a 7-day holding time after the TCLP extraction is performed. A copy of this revised Table is attached.

20. In response to PREQB comment 6.3.3 [3.3.3 of the 12/09/02 submittal] on the Master Field Sampling Plan [included as part of the Draft Master Work Plan], Table 2-1 has also been revised to reflect that the maximum holding time-listed for reactivity is 48 hours. A copy of this revised Table is are attached.

21. In response to PREQB comment 2.2.34 [1.2.34 of the 12/09/02 submittal] on the Site Specific Work Plan The Master Quality Assurance Project Plan (QAPP), which is included in the September 2001 Draft Final Master Work Plan has been revised to include a Table comparing the relevant risk based concentration criteria (either the Maximum Contaminant Levels [MCLs] of 40 C.F.R. § 141 or the Region 3 risk-based concentrations [RBCs] under residential usage) to the method detection limits (MDLs) required by method. A copy of this Table (Table #8-2K) is attached. However, reporting limits (RL's) are the concentrations detectable by the contracted laboratory.

22. In response to PREQB comment 2.2.34 [1.2.34 of the 12/09/02 submittal] on the Site Specific Work Plan, any laboratory quantification limits which exceed the corresponding constituent screening values will be noted in the Phase I Draft RFI Report, when submitted.

23. Figure 2-2 of the Site Specific Work plan has been revised to show that the geophysical survey will extend across the entire area within the SWMU #1 perimeter [as shown in Figure 2-2], to assess the full extent of the waste area of the landfill. The geophysical survey will include a magnetometer survey and an electromagnetic survey. A copy of the revised Figure is attached.

24. Figure 2-2 of the Site Specific Work Plan has been revised to eliminate the specific locations of the surface soil samples. Also, Section 2.1.3 [page 2-3] of the SSpWP has been revised to indicate that the surface soil sample locations will be based on the results of the geophysical survey. The samples will be collected within the areas identified as containing fill [waste] material, based on the geophysical survey results. The purpose of the samples are to assess potential risk to human health from direct contact and therefore will be collected to a depth of 0-6". Copies of the revised Figure and revised text in Section 2.1.3 [page 2-3] of the SSpWP are attached.

25. Figure 2-2 of the Site Specific Work Plan has been revised to show that the three wells previously proposed to be located within the indicated perimeter outline of the SWMU will be re-located to the southeast and southwest flanks of the indicated perimeter of the SWMU area. A total of four (4) wells will be installed on the presumed

downgradient side of the SWMU, and one (1) well will be installed on the northwest side of the SWMU as an upgradient background well. A copy of the revised Figure 2-2 is attached herewith. These wells will provide an assessment of the groundwater impacts directly downgradient from the landfill. The presumed southeast direction of groundwater flow willbe verified by groundwater elevation data collected from the wells. The wells will be screened at the first encountered groundwater zone, with the top of the well screen placed 2 feet above the water table, in order to detect any light non-aqueous phase liquids (LNAPLs) if present. In addition, if the analytical data from these well provide an indication that a DNAPL is present, then additional deeper wells will be installed during the Phase II RFI.

26. Figure 2-10 of the SSpWP has been revised to change "Waste Oil and Paint Accumulation" to "Waste Oil Accumulation". A copy of the revised Figure is attached.

27. Section 2.1.15.3 of Master WP has been corrected to clarify the RCRA corrective action process. A copy of the revised pages are attached. In addition, commentors should refer to the EPA May 1994 publication "RCRA Corrective Action Plan, Final" [guidance document EPA 520-R-94-004].

28. Figure 4.1 of Master WP has been corrected to show Ms. Yarissa Martinez as the current EQB point of contact for Vieques. A copy of the revised Figure is attached.

29. The Community Relations Work Plan (CRWP) which is included in the September 2001 Draft Final Master Work Plan has been revised to reflect the updated EQB participation and that EQB has been designated as a public repository for documents generated pursuant to the January 2000 RCRA Order. A copy of the revised CRWP is attached.

30. Formal agreements with emergency facilities are not required in a Health & Safety Plan

31. Additional sampling has been recently conducted in the vicinity of AOC A . This sampling was conducted in April 2003 in conjunction with the removal of all underground fuel storage tanks (USTs) located at OP 1, where AOC A is located. A copy of the work plan for that sampling is attached with these Responses. The results from the April 2003 sampling will be incorporated into the RFI Phase I Report, when developed.

32. The holding times and preservatives are the correct ones applied to the SW846 method which is used for analyses of these samples. Appendix IX [refer to 40 C.F.R. § 264 Appendix IX] contains suggested analytical methods for each listed constituent. Those methods are based on the most current EPA Report "Test Methods for Evaluating Solid Wastes", but as noted in the footnote to Appendix IX, "The methods listed ....may not always be the most suitable method(s) for monitoring an analyte [constituent] under the [RCRA] regulations."

33. For inorganics and organics, samples are quantified down to the MDL. Results between the MDL and the Reporting Limit (RL) are flagged as "estimated". For inorganic results that are found as non-detects, the correct reported value is the "MDL U". For non-detected organic results, the correct reported value would be "RL U".

34. Table 2-1 of the Work Plan for Groundwater Baseline Investigation at U.S. Navy's Eastern Maneuver Area has been revised to reflect requirements for analysis for all constituents listed in 40 CFR § 264 Appendix IX, except for the inorganic (metals) constituents which have previously been sampled and analyzed in the wells to be sampled under this work plan. A copy of the revised Table 2-1 is attached.

35. There is no requirement in the January 2000 RCRA Order that specifically requires Puerto Rico licensing for survey work in conjunction with the RFI or for certification of laboratory data reports. Section VIII of the January 2000 RCRA Order address Minimum Qualifications for Personnel, and Section X addresses certification requirements for laboratory data.

36. References to Volume 2 of the Master Project Plan will be deleted

37. Perchlorate has been added as a constituent identified in Tables 3-1, 3-2 and 3-3 of Site Specific Work Plan. Best possible technology (EPA 314) by the lab will be used and an MDL study performed in order to determine laboratory reporting limits. Copies of these 3 revised Tables are attached.

38. In the instance where volatile organic constituents (VOC's) for soils are the only method requested, a 2 or 4 ounce jar will be provided to the field team.

39. In response to PREQB's comment 2.3.4.d [1.3.4.d of the 12/09/02 submittal]] on the Site Specific Work Plan, Table 2-1 of the Master Field Sampling Plan, which is part of the Master Work Plan, has been modified to reflect that Method 8330 will be the analytical method of choice for analyizing waters and soils for explosive constituents. A copy of this revised Table is attached.

40. The analytical methodologies are selected based on site conditions, depending upon the constituents of potential concern (COPC's) and the reporting limits required for those COPC's. The best available technologies are then selected based upon these requirements.

41. Acrolein and acryonitrile are included in the 40 C.F.R. § 264 Appendix IX list of constituents and will be analyzed for. Therefore, the laboratory would be requested to send an un-preserved vial for analyses within 7 days, or the preservation method for samples for acrolein and acryonitrile analysis will be to a pH of between 4 - 5. Copies of the revised Table 3-3 are attached.

42. The Navy's project team has indicated it does not expect free chlorine to be present in samples being collected on site. Additionally, waste-water treatment plant (WWTP) effluents will not be sampled as part of these investigations. However, if analyitical interferences from free chlorine are expected or encountered in any samples collected, steps will be taken according to the method to account for such analyitical interferences.

43. Sample kits from the laboratory always include 10% extra bottles in case of breakage or for extra QC. Duplicate samples cannot be collected for every method and sample as the cost would be prohibitive. Proper packing of the coolers for shipment is the key to sample integrity. Additionally, if a bottle is broken, the field team will still be in the field to re-sample if necessary.

44. The laboratories will quantify down to the method detection limit (MDL) and any value found to be between the MDL and reporting limit (RL) will be qualified as an estimated value. The MDL is not meant to be a quantification limit, but rather is the statistically derived detection limit, as described at 40 CFR § 136 Section B. SW846 allows quantification down to the MDL. The reporting limit for organic methods is the lowest standard in the calibration curve. However, for some inorganic methods, including ICPES, that is not the case. ICPES applies the method.

45. The "Site Specific Field Sampling Plan Checklist ", included in the September 2001 SSpWP contained some discrepancies with the text of the September 2001 SSpWP work plan. These discrepancies have been corrected. A revised "Site Specific Field Sampling Plan Checklist " [pages B-5 and B-6] for the SSpWP is attached.

46. If additional analytical parameters are added or changes in current methodologies are employed, this information will be included in the site-specific Work Plans. The Master Quality Assurance Project Plan (QAPP) cannot anticipate scenarios where an unusual method or modification must be utilized in order to provide data that meets DQO's on a specific site.

47. The Master QAPP, which is included in the September 2001 Draft Final Master Work Plan has been revised to indicate that field sampling and laboratory analyses will be conducted in accordance with Section X of the January 2000 RCRA Order, and the Navy Installation Restoration Chemical Data Quality Manual (IR CDQM).

48. The Health and Safety Plan (HASP) which is included in the September 2001 Draft Final Master Work Plan has been revised to include provisions for de-contaminating the field equipment following the sampling of the lagoons and air monitoring. Meteorological monitoring is not required. A copy of the revised portions of the HASP and the [Heavy Equipment] Decontamination SOP are attached.